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# Natural Rearing Newsletter ©

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## FOR THOSE THAT CHOOSE TO THINK FOR THEMSELVES

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From The Desk Of: MARINA ZACHARIAS

### VACCINATIONS REVISITED—PART TWO

In our last issue we brought you some information that I thought every parent should be aware of. Animals, like children, have no voice in this issue. We, as guardians are the voice for our companion animals, so it is up to us to become informed and make the best choice for them.

In the case of rabies, state law mandates the vaccines, and so our choice is severely limited. Other vaccines are heavily pushed even though they are not legally required.

Some veterinarian clinics and boarding kennels require other vaccines prior to admission. Guardians who question the need for vaccines are often belittled. The veterinarian will either imply that the guardian does not really care about the animal or that the guardian has no qualification to make such a decision. Since we as guardians are in fact morally and ethically the responsible party, we must not give in to this form of intimidation. Instead we must take charge and act upon our knowledge to make a fact based decision rather than a fear based decision. The decision should not rest with someone else.

If you have read all of our previously published information on immunizations you already have more knowledge than the majority of people (including vets). So, let's apply some common sense to this controversial subject.

From a logical point of view, we should only immunize for diseases that meet ALL of the following criteria:

- The disease is serious, even life threatening.
- The animal is or will be exposed to the disease.
- The vaccine for the disease is known to be effective.
- The vaccine for the disease is safe.

In nature, an animal would only be exposed to one disease at a time. Thus common sense would dictate that if we are to vaccinate an animal, the vaccine should be administered as a single antigen not as a combination vaccine.

(1)

Therefore, rather than giving a group of antigens together at three to four week intervals, individual components should be given using an alternating schedule with minimum repetition.

Speaking of repetition, please remember that the risk of side effects is greatly reduced by simply eliminating the so-called "boosters". There should really be no need to subject a healthy adult dog to repetitive vaccinations.

If we apply the four basic criteria for immunization, we find that these principles will eliminate almost all need to vaccinate. For example, Canine hepatitis virus is almost nonexistent thus does not meet criteria two. (The vaccine virus to prevent canine hepatitis is adenovirus-2). Similarly, Leptospirosis is extremely rare (number two), and the leptospira component in the combination vaccines rarely protects the dog against the disease (number three). Additionally, the bacteria for "lepto" is very prone to side effects (number four).

Canine parvovirus and canine distemper do present a risk but most dogs will not be exposed to these diseases (number two). Parvovirus rarely affects dogs over 1 year of age, and even 8 to 12 month old dogs generally survive the disease with minimal illness. In regions where there has been a serious outbreak of parvo, both vaccinated and unvaccinated dogs have been susceptible. Thus the effectiveness of this vaccine must be questioned (number 3).

I generally do not recommend vaccination but there are always exceptions. If you decide that you absolutely must go ahead with this type of immunization, consider limiting the number of shots to be given to your animal.

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Essentially, the primary cat and dog diseases for which vaccination may be warranted are canine distemper, canine parvovirus, feline panleukopenia (distemper), and rabies.

Dr. Ron Schulz of the University of Wisconsin-Madison School of Veterinary Medicine, has shown that one vaccination is often adequate for protection if given at the appropriate age. Dr. Schultz suggestions are as follows:  
Canine distemper—10 to 12 weeks  
Canine parvovirus—12 to 14 weeks  
Feline panleukopenia 10 to 12 weeks

Thus, if you have a new puppy, one dose of distemper vaccine at 10 to 12 weeks of age, followed in two weeks by one dose of parvo vaccine, stands a 95% chance of protecting him from these two diseases for life!

A quote from Kirk's Current Veterinary Therapy:  
“---there is no immunological requirement for annual revaccination.”

Please remember that vaccines should never be given to unhealthy animals! I am appalled at the growing popularity of the practice among veterinarians that for some strange reason insist on “updating” all vaccinations when a sick animal is brought into the clinic for an obvious illness of some type. This goes against the recommendations in all vaccine inserts as well as those of virtually all immunologists. I simply don't understand the reasoning of any professional that condones this practice.

I have heard so many horror stories where an animal is taken in for surgery, or some other reason and the veterinarian later tells the client “Oh by the way, we gave him all his shots while he was here”. No permission was asked from the client, just the arrogant assumption that it was the right thing to do. It's almost at the point now where you must specify to your vet that you do not want the animal to be vaccinated whenever you go in for anything!

As there is always a very real risk applicable to all vaccines, we must give serious consideration to number four in making an informed decision on behalf of our animals.

To quote Dr. Schultz: “We have had the idea for years that vaccines, if they don't do any good, won't cause harm. I think that's another concept the veterinarian has to get away from because whether it be modified live or non-infectious, there is the potential to cause harm!”

The highly respected W. Jean Dodds, DVM has for many years emphasized that “For certain families or individual purebred dogs, exposure to any type of commercial vaccine product has been associated with significant adverse reactions”.....“These include autoimmune diseases of the blood, liver, and severe seizure-like disorders”.

For those of you that may have friends that believe that any discussion of risks in vaccinations is only the ranting of those “holistic” fringe people, I would like to refer them to an article written by Ian Tizard, BVMS, Ph.D. (2)

The title of the article is “Risks associated with the use of live vaccines”. It was published in 1990 by the peer reviewed Journal of the American Veterinary Medical Association. (See vol. 196, No 11, Pages 1851 to 1858.) I don't know of anyone that has ever accused the AVMA of being part of a holistic group.

I wish I had room to bring you the full article but must settle for a few excerpts just to give you some idea of the broad aspects in the risks involved.

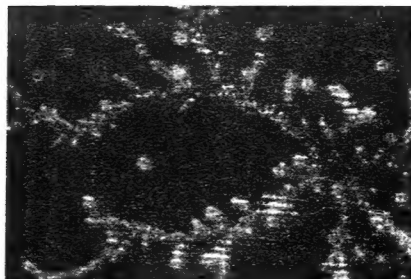
- “The vaccine manufacturer seeks to achieve minimal virulence while retaining maximal immunogenicity. This balance may be readily achievable in clinically normal healthy animals, but may be unattainable in animals with even minor defects in immune competence.”
- “When modified live vaccines are administered to healthy animals, their residual virulence is controlled by an elective immune system. If a modified live vaccine is given to a pregnant animal and these organisms gain access to the fetus, the immature fetal immune system may be unable to control the resulting infection. Thus some live vaccines, although safe for use in non-pregnant animals, may cause fetal infection resulting in malformations or abortion.”
- “...postvaccinal rabies has been reported in dogs, and cats, as well as in people.”
- “Strains of modified live rabies vaccines used in dogs may retain virulence for non-domestic species. Thus, the low-egg passage Flury strain, designed for use in dogs, has been reported to cause rabies in skunks and raccoons.”
- “Canine adenovirus 1 vaccine strains, although safe from a protective point of view, can multiply in the renal tubular cells of vaccinated dogs and cause subclinical kidney infections. As a result, virus may be shed in the urine of vaccinated dogs and may be spread to other animals.
- “...it is speculated that CPV (canine parvo virus) might have arisen through rapid accidental passage of FPV or mink enteritis virus in a canine cell culture line. Cells infected with the new mutant may have been transmitted globally through a contaminated biological product such as a vaccine.”

As most of you know, my decision not to vaccinate was made many years ago. This was not done blindly but was based on information I had at the time. Instead I chose to provide my animals with proper nutrition from a raw food diet, along with supplements to help them to build a healthy immune system. I felt that if the species had survived for thousands of years before vaccines, that if I did the things that were necessary to help my animals be as healthy as possible, they would be able to handle the chance exposure to disease. I also chose to use homeopathic nosodes as a more natural method of immunization.

Remember that NOTHING will provide a 100% guarantee against contracting a particular disease. This of course includes vaccinations!

It is your choice. For your animals' sake, please make it an informed one.

## CAN WATER HAVE MEMORY?



The photo on the left shows ordinary London tap water with no clear structure and small amounts of Biophoton emissions. The other two photos show London tap water (at the same magnification) after energization with the Vortex Energizer, showing increased structure and more vibrant biophoton emissions. Center: the branch like "female" structure. Right: the geometrical "male" structure.

It's always such a neat surprise to run across some scientific research hidden away in a publication not usually associated with holistic health care. Especially if it can lend credence with respect to the "**mechanism of action**" that makes homeopathic remedies work!

The detractors of homeopathy are quick to point out that at the dilutions commonly used, it is mathematically impossible for there to be any physical substance present in a remedy. Thus it simply cannot have any effect and is all "quackery" or just a placebo effect.

Mainstream science has tried to ignore and deny any possibility that water may have the ability to take on and hold an energy pattern of a substance. This "memory of water" phenomenon lies beyond the accepted level of scientific inquiry and little effort has been made by conventional research institutes to understand it. However there are exceptions, and an exciting new understanding is emerging of the marvelous properties of water.

The photographs above were taken by Professor David Schweitzer through a phase contrast dark-field microscope at 4,000x magnification and show the changes to the micro cluster structure of water as a result of being energized. The middle and right images clearly show the increased structure and more vibrant biophoton emissions. (Biophotons are molecular light emissions, which according to other research, regulate cell growth and regeneration and control all biochemical processes.)

Various researchers such as Professor Benveniste, Dr. Ludwig and Professor Schweitzer have provided clear proof that water acts as a liquid tape recorder and is able to receive, store and transmit electromagnetic vibrations. Because water molecules have a positive and negative pole they behave like little magnets. They attach themselves to their neighboring molecules and form clusters of several hundred molecules. These clusters are very sensitive (3)

structures and are impressionable by vibratory influences. This is what gives water the ability to store information.

It doesn't take a great leap in logic to realize how closely this phenomenon is linked to a probable explanation of the mechanism of action involved with homeopathy.

Simply put, homeopathy works because of the cluster ability to store vibrational imprints. We know that every substance has its own individual vibrational pattern, a bit like an energy blueprint.

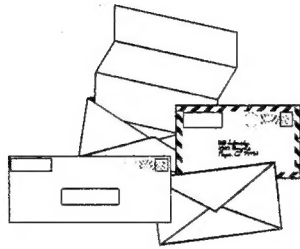
If you carry out the homeopathic process of diluting and succussing, the vibrational pattern of the remedy material becomes locked into the cluster structure of the carrier water. When you take this homeopathically prepared remedy, the cluster structure is transferred into the body and you react to the vibrational pattern of the original substance from which the remedy was prepared.

With the evidence provided in these startling photographs and a logical hypothesis of the "mechanism of action" involved in a homeopathic remedy, gradually I would hope to see greater acceptance in mainstream medicine.

I was pleasantly surprised to see a favorable article on a study concerning the homeopathic remedy Traumeel in "*Cancer*" (a journal of the American Cancer Society). The conclusion reached by the study was that Traumeel "may reduce significantly, the severity and duration of chemotherapy-induced stomatitis in children undergoing bone marrow transplantation."

I'm not surprised at the results of the study but for a favorable article concerning homeopathy to be printed in a very mainstream medical journal can only mean that we are chipping away at the foundation of the skeptics. It will be interesting to observe how the opponents of homeopathy respond to this development.

## MAILBOX



Dateline Jan/02

e-mail

I just finished reading the article by Dr. Fudens in regard to the rabies vaccine. I am facing a big problem with this vaccination right now because I don't want my six month old female Golden Retriever to be vaccinated. But in order to get her spayed I am forced to do so because I am unable to find a vet in (area) who is willing to do the spaying without having her vaccinated. What other options besides not having her spayed are there? Could you refer me to a vet who can do this without vaccination?

On August 31, 2001 my other golden Retriever succumbed to Hemangio Sarcoma!!! I believe in my heart that he died not only from poor quality food (top of the line dog food) but also from over-vaccination.

As a German Native I was very surprised to find out how much veterinarians do for your dogs in the USA. Most of the vaccinations I had never heard of. Although I do not trust conventional doctors for humans (I have not seen a conventional doctor in Germany for 15 years—only Homeopathic doctors) I blindly trusted my dogs vet.

He got all possible vaccines including Lymes and whenever I started doubting my Vets abilities, I told myself that he is the expert.

After (dogs name) diagnosis, I started researching alternative health care for dogs and in my desperate attempt to turn this disease around, I went to the Goldstein clinic in New York. I also got carnivora from another Vet who had good success with this herbal treatment.

I immediately changed (dogs name) diet to raw meat and vegetables. My vet advised strongly against it and told me that dogs are so domesticated that this good wholesome food could actually make him sick and that their whole digestive system is not able to handle raw food anymore. What a piece of crap!!!

Every time, throughout (dogs name) short life (6 ½ years) I started questioning my Vet about a better way of feeding him, he told me dog food is the best for him.

This dog told me even when he was a little puppy that he didn't like his food. He would stand in front of his

bowl for up to ½ hour without touching it and finally give in with a sigh.

He got fruits and vegetables occasionally and he loved it. But still I didn't listen to what he was trying to tell me. After all, my Vet was professionally trained and surely wouldn't offer me bad advice.

He got sick after each vaccination (vomiting, diarrhea, skin rashes) but whenever I would ask my Vet what was wrong with him, he would just wave it off and tell me it's nothing serious. Looking back and knowing what I know now I cannot believe that I let this happen.

I don't want this for my little female. I feed her raw chicken wings and legs, thighs, etc. She gets pulped veggies, lots of Vitamin C and E, EFA's, Kelp, ground eggshells, etc. Even my 8 ½ year old Labrador mix is doing wonderful on this new food. I really want to do the right thing but vaccination is not an option.

Thank you for listening. I will be looking forward to hearing from you.

There is very little need to add anything to this message other than to sympathize with yet another tragic experience. I do firmly believe that commercial dog food and over-vaccination are the primary two reasons we are seeing so many health problems in our companion animals today.

I don't doubt that this Vet's opinion with respect to domesticated dogs not being able to handle raw food anymore, was developed from his "education" provided by the commercial dog food manufacturers.

As commercial dog food has only been around for the last 50 or 60 years, does that mean that our dogs weren't "domesticated" before that? Come on doc, let's use the ol' noodle a bit here and apply some plain old common sense. Do you actually believe that an entire species changed so much since the 1940's until now, that we have genetically made dogs incapable of handling wholesome food?

Unfortunately, all too many conventional veterinarians share this view. The "spin doctors" have peddled this line for so long now that it is accepted without questioning the source. As we have said before "show me the science" behind this opinion! (and I don't mean the Science Diet).

I would especially ask you to note the vet's opinion that the obvious repeated bad reactions to vaccinations were "not serious". Were they a contributing factor to the development of a sarcoma? Difficult to prove one way or another. But the opinion that a bad reaction could not be serious is indicative of the belief that vaccinations can cause no harm. I'll let you dear reader, be the judge of that opinion.

## PADMA

No Charley, this article is not about the cuddly black and white teddy bear. It is about an ancient herbal formula from Tibet that is once again available in the United States.

As some of you may know, Tibetan medicine has a very long history going back some 3500 years. Unfortunately when the Chinese invaded—err—ah—“liberated” Tibet and took over the country, they systematically destroyed many of the Tibetan monasteries that contained untold volumes of information on healing formulas and techniques. Much of this knowledge is now lost forever.

Padma was derived from a very ancient formula known as “*Gabur*” or the “camphor formula”. It has a long and successful history of treating and strengthening the cardiovascular system, stopping infections, and relieving inflammatory conditions. In Tibetan medicine it is still a primary longevity formula.

The camphor formula was taken out of Mongolia in the 1850's and eventually found its way to Switzerland. It has been available commercially in that country and parts of Europe for more than 30 years.

Padma Inc., of Switzerland has been making the formula under the name of Padma 28 for decades. It is called “28” because it was based on the 28<sup>th</sup> formula in an ancient textbook of Tibetan medicine. Just recently the product named Padma Basic has become available from the same Swiss company.

I must admit that I am impressed with this company and this product for several reasons. Many times we will hear about a product that will claim to be the “magic elixir” that cures all ills. Usually there is more “hype” than substance and sooner or later the product falls by the wayside. The claims made for Padma are both modest and substantiated with a broad variety of studies. As a matter of fact, it isn't until you dig in to several of the studies that the true character of Padma comes to light.

Of course it does not cure everything, but it does have a very wide range of effectiveness. The two areas where it really is outstanding are cardiovascular protection and the regulation of the immune system. In other words, rather than simply stimulating the immune system, Padma helps bring it back into balance. The difference is very important.

For example, when foreign agents enter the body, the immune system uses oxygen free radicals to destroy pathogens. However, when excessive free radicals are present, that might cause destruction to healthy tissue, the immune system uses antioxidants to quench free radicals. By balancing the immune system response, Padma can effectively be pro-oxidant or anti-oxidant.

Ultimately, it is the immune system of the body that is the prime healer within. Thus an ideal method of achieving health is to find a way to help the body's immune system become more efficient and effective. That's what Padma does. (5)

When certain components of the immune system are low in number, such as various types of white blood cells, using Padma results in their increased synthesis. White blood cells are one of the first lines of defense against invading bacteria and viruses.

Research suggests that the various components in Padma somehow help the immune system to better distinguish between normal, harmless bacteria or proteins and those that can cause destruction and disease. The importance of this unusual characteristic becomes more apparent in treating chronic infections such as hepatitis. This form of liver destruction is associated with a virus.

Viruses work by invading and taking over control of normal cells. This characteristic makes viruses particularly hard to eliminate. With hepatitis B (and other forms of viral hepatitis), it became increasingly clear that the severe chronic inflammation wasn't coming directly from the virus, but was a result of the body's immune cells continuing to attack its own liver cells where the virus was residing.

After treating 126 adults and 52 children with chronically active hepatitis B, researchers found that Padma can have profoundly positive effects. Patients were treated for a two-year period with 2 tablets of Padma taken 3 times daily. In addition to the Padma, they were given 1,000 milligrams per day of gamma-linolenic acid (GLA). There was significant improvement in almost all of the patients. In about 15%, the viral infection was totally eliminated. In 90% of the individuals, blood chemistry returned to normal and the various white blood cell groups improved significantly. The patients reported that their appetites and overall wellbeing had improved and ultrasonic tests revealed that there was no noticeable damage to their livers or spleen. Only in about 10% of the individuals was Padma unable to return the biochemical parameters to normal and eliminate the inflammatory process.

It seems that Padma's ability to help the body recognize viruses and bacteria, and improve its ability to eliminate them, may be of help in other kinds of chronic infection as well.

Padma was tested in a three year study involving 305 children with chronic infections. Each of the children had suffered at least one infection per month during the preceding 9 months, including three incidences of bronchitis and/or pneumonia. The children ranged in age from 10 months to 8 years. All other treatment programs involving steroids were stopped three months before Padma was administered.

The dosage varied based on the age of the children. Those over 3 years old were given 1 tablet three times a day. Those under 3 were given ½ tablet three times a day. These were taken ½ hour before meals. Over 70% of the children showed clear improvement in both frequency and severity of their respiratory conditions as a result of using Padma.

There was another small study done in Poland that indicated that Padma may be able to help stabilize HIV infections. Further work will need to be done in this area to confirm the early findings.

Another major area that Padma excels at, is in promoting a healthy cardiovascular function. What makes it more unusual is that it appears that it does not work by vasodilatation as many drugs do. In other words it doesn't cause the blood vessels to open wider. Instead, research has shown that it actually makes several beneficial changes to the blood chemistry.

This happens because of the synergistic effects of the different herb combined with natural camphor in Padma. The product contains a wide range of bioflavonoids, tannins, salicylates, valepotriates, phenol acids, essential oils, and esters of various acids. Together the herbs have been shown to cause a significant decrease in platelet aggregation or excessive blood clotting. They also lower total cholesterol levels, triglycerides, total blood lipids, and beta lipoproteins, while at the same time increasing the ++alpha lipoproteins.

Padma Basic contains the following herbs:

- Allspice (*Pimenta dioica*)
- Bengal Quince (*Aegle marmelos*)
- Calendula (*Calendula officinalis*)
- Cardamom (*Elettaria cardamomum*)
- Clove (*Syzygium aromaticum*)
- Columbine (*Aquilegia vulgaris*)
- Costus Root (*Saussurea lappa*)
- English Plantain (*Plantago* spp.)
- Gingerlily Rhizome (*Hedychium spicatum*)
- Golden cinquefoil (*Potentilla aurea*)
- Heartleaved Sida (*Sida cordifolia*)
- Iceland moss (*Cetraria islandica*)
- Knotgrass (*Polygonum aviculare*)
- Lettuce leaf (*Lactuca sativa*)
- Licorice Root (*Glycyrrhiza glabra*)
- Margosa (*Azadirachta indica*)
- Red Sandalwood (*Pterocarpus sandalinus*)
- Tropical Almond (*Terminalia chebula*)
- Valerian Root (*Valeriana officinalis*)
- Natural Camphor
- Calcium Sulfate

It is Glucose and lactose free with no known side effects and no known interactions with prescription medicines.

The herbs are sourced from around the world and rigorously tested throughout the production process. The company tests for identity, purity, and potency by chemical fingerprinting using high-pressure liquid chromatography and thin layer chromatography. In addition test batches are also sampled the old fashioned way, by trained tasters to check for astringency.

I was impressed with the painstaking manufacturing process followed to insure product effectiveness. It is packaged to have a five-year shelf life. It is also free of pesticides and contaminants.

All in all, I am very pleased to add Padma Basic to our tool kit of remedies for better health. (6)

## In The News

We told our readers about this years ago but it seems like someone else has finally caught on. Here is a snippet of an article that recently appeared in our local newspaper.

Headline: "Some euthanized dogs and cats end up as pet food in St. Louis"

KMOV-TV in St. Louis, ran a segment on pets that no one wants. In the film, they cut to a local rendering plant that handles the city's euthanized dogs, along with dead pigs, cows, etc. They went on to say that the end products are used to make cosmetics, fertilizer, gelatin, poultry feed, pharmaceuticals and you guessed it PET FOOD. As proof, they aired footage of a tanker truck entering the rendering plant, a truck emblazoned with the motto "Serving the Pet Food Industry".

Pet owners went nuts. Their protests were so vigorous that the local rendering plant, faced with so much rage, announced that it would stop accepting euthanized dogs and cats. Now the city is pondering the problem of what to do with the carcasses.

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Is it any wonder that people get confused when reading "news" about herbal products. Here are snippets from two articles appearing in the same issue of "the natural foods merchandiser" (a trade publication sent to health food stores). The bold letter emphasis is mine.

1. "Kava Kava has come under scrutiny in Europe, Canada and the United States after a German government published studies on the herb's **potentially hazardous** effects on the liver"
2. "New studies support Kava for anxiety." "Two new studies conducted at Duke University Medical Center show Kava Kava extract is **safe** and as **effective** as prescription drugs for treating stress and anxiety. These studies add to a growing body of science on Kava".

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Speaking of confusing "news", do you remember when margarine was promoted as a "health food"? It was originally introduced as a healthy, man-made alternative to saturated fat. Soon you'll be seeing a new line item on nutritional labels required by the FDA---trans fatty acids. (Yes Charlie this is the "bad" kind that is used to make margarine.)

Oh yes, just read another interesting little item in our local paper. Seems that the chemical used to make "decaffeinated coffee" is very bad for you. So here we go again: Man monkeys with our food supply to "make it better" and a few years later we find out that what was "good" then is "bad" now.

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## NATURAL AID FOR DIABETICS

Diabetes is defined as a disorder of carbohydrate metabolism caused by absence or deficiency of insulin, insulin resistance, or both, ultimately leading to hyperglycemia.

As you probably know, a large segment of our population suffers from this disorder. What you may not be aware of, is that diabetes is also widespread in the dog and cat population. Most cases occur in middle-aged dogs and cats. In dogs, females are affected twice as often as males. The disorder appears to be increased in certain small breeds such as Miniature Poodles, Dachshunds, Schnauzers, Cairn Terriers, and Beagles, but any breed can be affected. In one study, male cats were more commonly affected than females. No breed predilection is seen in cats.

People (and animals) with diabetes cannot properly process glucose, a sugar the body uses for energy. As a result, glucose stays in the blood, causing blood glucose to rise. At the same time, however, the cells of the body are starved for glucose.

Diabetes mellitus is typically classified into two subtypes: Type-I or insulin-dependent diabetes mellitus (**IDDM**) and Type-II or non-insulin dependent diabetes mellitus (**NIDDM**). Type I is called juvenile onset diabetes and type II is called adult onset diabetes.

In IDDM (Type 1), the pancreas can't make the insulin needed to process glucose as a result of the destruction to islet cells of the pancreas which secretes insulin.

With NIDDM (Type II), the pancreas makes enough insulin, but the body has trouble using it.

Type 1 and Type II are differentiated on immunological-etiological grounds with Type 1 referring to an immune-mediated condition, whereas type II is non-immune mediated.

Of those afflicted with diabetes mellitus, it is estimated that 90% are of Type II (NIDDM). This is highly associated with western industrialized cultures in which the refined and processed, fiber depleted diets are predominant. Although hereditary predisposition, viral and bacterial affliction of the pancreas, and auto-immune antibodies have their effect on the pancreatic islets and contribute to the development of the disease, diet, lifestyle, and obesity are by far the most significant risk factors for the development of diabetes.

Diabetic animals have decreased resistance to bacterial and fungal infections and often develop chronic or recurrent infections such as cystitis, prostatitis, bronchopneumonia, and dermatitis.

In the treatment of diabetic animals, a diet focused on high complex carbohydrates, high fiber and low fat is recommended. In general, two to three meals a day rather than just one, will give better results. (7)

The carbohydrate portion of this diet must be of the very best quality and does not include sugar or processed starches. In developing a high fiber diet we should:

- Increase cereal grains like oats that are high in soluble fiber.
- Increase legumes like lentils, peas, and navy beans which are high in soluble fiber.
- Increase root vegetables like yams.
- Increase fresh organic vegetables.
- Avoid simple sugars, but whole organic fruit like pears and green apples are good.
- Decrease fat and avoid trans-fatty acids as much as possible.
- Avoid highly processed foods and flours. For pets, this means avoiding all commercial pet foods.

In addition to the basic diet, there are a number of specific nutrient supplements that can greatly enhance the control of diabetes.

- Bioflavonoids—May enhance insulin secretion
- Biotin—Mediates phosphorylation of glucose, may improve glucose tolerance and lowers insulin resistance.
- Chromium—An essential micronutrient that functions as a cofactor in all insulin-regulating activities. It is part of the glucose tolerance factor. Double blind research shows that chromium supplements improve glucose tolerance in both Type 1 and Type II diabetics.
- Copper—Deficiency may impair glucose tolerance which results in elevation of glucose.
- Inositol—Improves diabetic neuropathy. It is needed for normal nerve function. Diabetes can cause nerve damage or diabetic neuropathy, which may be reversed by inositol supplementation.
- Magnesium—Is essential for glucose homeostasis, and it is a co-factor in glucose transport and regulates energy production in liver mitochondria. A tendency for magnesium deficiency in patients with diabetes is well established. The plasma magnesium level has been shown to be inversely related to insulin secretion in patients with Type II diabetes.
- Manganese—An important co-factor in the key enzymes of glucose intolerance.
- Niacin—Is a component of the glucose tolerance factor. It plays an important role in carbohydrate metabolism.
- Potassium—Improves insulin response to glucose. Insulin administration often causes potassium deficiency.
- Selenium—May protect against retinopathy. It has been shown that patients with diabetes have pronounced decreased selenium concentrations in erythrocytes.
- Vitamin B6 (Pyridoxine)—Plays an important role in the metabolism of carbohydrates. A deficiency of B6 has been associated with impairments in gluconeogenesis and abnormal glucose intolerance.
- Vitamin B12—Prevents and treats diabetic neuropathy.
- Vitamin C—May prevent sorbitol accumulation and inhibits glycosylation of proteins. Glucose competes with ascorbic acid for absorption, therefore diabetics are often low in tissue levels of C. Note: high dose vitamin C is contraindicated in patients with kidney failure.

- Vitamin E—Is an antioxidant that has been demonstrated to improve insulin action. It may control blood sugar and decrease glycosylation of proteins. Vitamin E also reduces cellular damage through its antioxidant properties and reduces cardiac diseases. **NOTE:** The dosage of vitamin E must be slowly increased in diabetics on insulin because it may reduce insulin requirements.
- Zinc—Has an antihyperglycemic effect. It may enhance insulin synthesis and increase insulin binding. Diabetics excrete more zinc than non-diabetics.

Additional supplements that have proven useful are: Vanadium (vanadyl sulfate) reduced glutathion, alpha-lipoic acid, coenzyme Q10, fish oils, flaxseed oil, and the amino acid taurine.

There are several specific botanicals that have also proven to be effective in controlling diabetes.

- *Allium sativum* & *Allium cepa* (Onions and Garlic)—Blood sugar lowering action. Onions and garlic have several sulfur containing constituents that compete with insulin for binding sites in the liver which results in increased insulin in free circulation. A sulfur containing amino acid (SACS) that is a precursor of allicin and garlic oil, has been found to show significant effects in diabetic rats. Administration of SACS decreased significantly the concentration of serum lipids, blood glucose and activities of serum enzymes like alkaline phosphatase, acid phosphatase, and liver glucose-6-phosphatase.
- *Momardica charantia* (Bitter Melon)—Has been used in many cultures for centuries to treat diabetes. One isolate (charantin), compares favorably to "Tolutamide", an allopathic drug commonly used as an oral hypoglycemic agent. Bitter melon contains insulin-like polypeptides that lowers the blood glucose.
- *Vaccinium myrtillus* (Bilberry) and blueberry leaves—Appear useful in controlling hyperglycemia. Anthocyanosides in the *Vaccinium* family have a stabilizing effect on capillaries, inhibits free radical damage, and prevents damage to vascular walls. This helps to treat and prevent diabetic retinopathy and nephropathy by improving the integrity of the vascular system.
- *Trigonella foenumgracum* (Fenugreek)—Improves glucose tolerance, reduces fasting blood sugar, decreases 24-hour urinary glucose output and serum cholesterol. It also improves postprandial glucose, insulin response, and general blood sugar control. One study showed that a fenugreek diet significantly reduced fasting blood sugar and improved the glucose tolerance test.
- *Galega officinalis* (Goats rue)—Contains alkaloid galegine that is reported to have hypoglycemic properties by enhancing glucose utilization
- *Catharanthus roseus* (Madagascar periwinkle)—Is widely used as an anti-diabetic botanical. It contains many alkaloids including vindoline, that have anti-diabetic activity. A comparison of blood sugar lowering activity of four important plants such as *Catharanthus* and *Gymnema sylvestre* were carried out against normal and diabetic rats. The results showed that they had potent blood sugar lowering activity.

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- *Pterocarpus marsupium*—A traditional Indian botanical that is used in treatment of diabetes. It is a flavonol glycoside found in the bark of the tree and has been shown to prevent beta cell damage to the pancreas, and is also reported to have insulin-like activity.
- *Gymnema sylvestre*—The leaves of *Gymnema* have been used for centuries in Ayurvedic and folk tradition as a therapy to improve diabetes. It decreases blood sugar and glycosylated hemoglobin while increasing free insulin. The active component GS4 may enhance endogenous insulin production in both Type 1 and Type II diabetes. It may also increase the number of islets of Langerhans and beta cells. In a study, GS4 was administered for 18 to 20 months as a supplement to the conventional drug. During this time, the patients showed significant reduction in blood glucose, glycosylated hemoglobin, and Glycosylated plasma proteins. **Thus, conventional drug dosage could be reduced.** Five of the 22 diabetic patients were able to discontinue their conventional drug and maintain their blood glucose homeostasis with GS4 alone. These data suggest that the beta cells **may be regenerated or repaired** in type II diabetic patients on GS4 supplementation.

This is supported by the appearance of raised insulin levels in the serum of patients after GS4 supplementation. To confirm this finding, researchers at the University of Madras extracted two soluble components GS3 and GS4 from *Gymnema sylvestre* to test in diabetic rats. They found that fasting blood glucose levels returned to normal after 60 days of GS3 and after 20 days of GS4 oral administration.

GS3 and GS4 therapy led to a rise in serum insulin to levels closer to normal fasting levels. It was found that in the pancreas of the diabetic rats, GS3 and GS4 were able to double the islet number and beta cell number. So it appears that *Gymnema sylvestre* brings about blood glucose homeostasis through increased serum insulin provided by repair or regeneration of the endocrine pancreas.

We have experienced very good results in treating diabetes with a combination of four supplements. *Gymnema*, Pancreas Complex, Gluco Balance, and Carbo Hydrenz.

*Gymnema* for the obvious benefits listed above. Pancreas Complex is a lyophilized gland concentrate with synergistic support for pancreas function. Gluco Balance is a combination of many of the nutrients listed in this article. It was formulated for Biotics Research by Jonathan V. Wright, M.D. and Alan R. Gaby, M.D. Carbo Hydrenz is a specific enzyme booster for aid in digesting carbohydrates.

Using this combination for dogs and cats has been effective in lowering the need for insulin injections. Most importantly, it has allowed a high success rate in stabilizing the diabetic animal. Please note that it is mandatory that you work closely with your vet to monitor the insulin needed for each individual animal.

‘Till next time, take care out there.